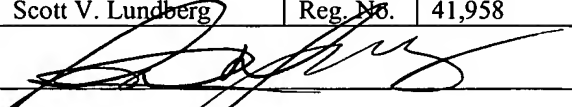
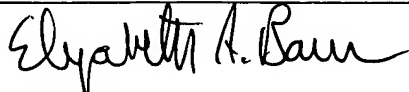
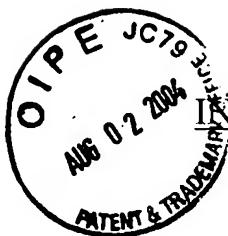
AF/ 2837  
IFW

Applicant(s)	William R. Young	<b>TRANSMITTAL FORM UNDER 37 CFR 1.8 (LARGE ENTITY)</b>
Serial No.	10/076,716	
Filing Date	February 14, 2002	
Group Art Unit	2837	
Examiner Name	Anthony J. Salata	
Attorney Docket No.	125.010US01	
Title: ESD PROTECTION NETWORK UTILIZING PRECHARGE BUS LINES		

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<b>Enclosures</b>					
The following documents are enclosed:  <u>X</u> A Reply Brief (5 pgs.). <u>X</u> A return postcard.  <b>Please charge any additional fees or credit any overpayments to Deposit Account No. 502432.</b>  <b>CUSTOMER NO. 34206</b>					
<b>Submitted By</b>					
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Attorneys for Applicant Fogg and Associates, LLC P.O. Box 581339 Minneapolis, MN 55458-1339 T: 612-332-4720 F: 612-332-4731					
<b>Certificate of Mailing</b>					
I certify that this correspondence, and the documents identified above, are being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Appeal Brief- Patent, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on July 28, 2004					
Name	Elizabeth A. Bauer	Signature			



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS

Appellants:	William R. Young	<b>REPLY BRIEF</b>
Serial No.	10/076,716	
Filing Date	February 14, 2002	
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**Remarks**

In the Examiner's Answer, the Examiner repeated the grounds of rejection from the Final Office Action. See, Examiner's Answer at ¶¶ 10 and 11. The Examiner further addressed a number of comments in response to arguments in Applicant's Appeal Brief. Applicant provides the following arguments in response to the Examiner's Answer:

I. In addressing the rejection of claims 1 and 14, the Examiner asserted that Column 13, lines 20-30 of the Smith reference "clearly state the operation of the elements 810, 816 as precharging the segmented ESD buses during normal operation." However, 810 and 816 of the Smith reference are diodes. Both claim 1 and claim 14 of the present application claim charge pumps. Contrary to the Examiner's assertion, the term "charge pump" does not mean "diode" and therefore a rejection of claims 1 and 14 under 102(b) is incorrect since the Smith et al. reference does not teach every aspect of claim 1 and 14.

The following sets out the law that is to be applied in determining the meaning of terms in a claim. The general rule is that there is a "heavy presumption" in favor of using the ordinary and accustomed meaning of terms in a claim. Johnson Worldwide Assocs., Inc. v. Zebco corp., 175 F.3d 985, 989, 50 USPQ2d 1607, 1610 (Fed. Cir. 1999). This "heavy presumption" in favor of the claim term's ordinary meaning is overcome, however, if a different meaning is clearly and deliberately set forth in the intrinsic

evidence. See K-2 Corp. v. Salomon S.A., 191F.3d 1356, 1363, 52 USPQ2d 1001, 1004 (Fed Cir. 1999); Johnson Worldwide, 175 F.3d at 989, 50 USPQ2d at 1610.

Consequently, the court must examine the specification and the applicable prosecution history to determine whether a patentee has chosen to give a claim a definition other than its ordinary meaning. See, Bell Atl. Network Serv. v. Communications Group Inc., 262 F.3d 1258, 1268, 59 USPQ2d 1865, 1870 (Fed. Cir. 2001); Biovail Corp. Int'l v. Andrx Pharms., Inc., 239 F.3d 1297, 1301, 57 USPQ2d 1813, 1815 (Fed. Cir. 2001).

Although extrinsic evidence (such as expert testimony) can be used to explain, corroborate and reinforce distinction recited in a written description, AFG Ind. Inc. v. Cardinal IG Co., 57 USPQ2d 1776, 1784 (Fed. Cir. 2001), it should not be used for the purpose of varying or contradicting the terms of the claims. Markman v. Westview Instruments, Inc., 52 F.3d 967, 34 USPQ2d 1321, 1331 (Fed. Cir. 1995) citing U.S. Indus. Chems., Inc. v. Carbine & Carbon Chems. Corp., 315 U.S. 668, 53 USPQ 6, 10 (1942).

The Federal Circuit has recently stated that dictionaries, encyclopedias and treatises are often the best resource to determine the ordinary meaning of claim terms. Specifically, the Federal Circuit stated:

It has long been recognized in our precedent and in the precedent of our predecessor court, the Court of Customs and Patent Appeals, that dictionaries, encyclopedias and treatises are particularly useful resources to assist the court in determining the ordinary and customary meanings of claim terms.

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When a patent is granted, prosecution is concluded, the intrinsic record is fixed, and the public is placed on notice of its allowed claims. Dictionaries, encyclopedias, and treatises, publicly available at the time the patent issued, are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art. Such references are unbiased reflections of common understanding not influenced by expert testimony or events subsequent to the fixing of the intrinsic record by the grant of the patent, not colored by the motives of the parties, and not inspired by litigation. Indeed, these materials may be the most meaningful sources of information to aid judges in better understanding both the technology and the terminology used by those skilled in the art to describe the technology.

*Texas Digital Systems, Inc. v. Telegenix, Inc.*, 308 F.3d 1193, 1202-03 (Fed. Cir. 2002).

The ordinary meaning of charge pump is circuit similar to what has been disclosed in Figure 3 and discussed in paragraphs 38 and 39 of the present application. That is, a typical charge pump may include such elements as a power source, switches and one or more capacitors which are arranged in fashion to charge a device or line. The following references provide examples of what the ordinary and accustomed meaning of the term “charge pump” is in the art. For example, a basic charge pump circuit is shown on page 544, of the Encyclopedia of Electronic Circuits, Volume 7, (1999) wherein it states in regards to the disclosed “charge pump”, “a basic charge pump provides voltage doubling or inversion.” Another example of a definition of the term “charge pump” as used in the art is “a power supply which uses capacitors instead of inductors to store and transfer energy to the output.” Glossary of Electrical Engineering Definitions, Dallas Semiconductor Maxim, <http://www.maxim-ix.com/glossary>. Further another definition of “charge pump” as used in the art states “charge pumps are circuits that generate a voltage larger than the supply voltage from which they operate.” Charge Pumps: An overview, Louie Pylarinos and Edward S. Rogers, Department of Electrical and Computer Engineering, University of Toronto, <http://www.eecgtorono.edu>. Accordingly, the ordinary and accustom meaning of “charge pump” is a circuit such as that illustrated in Figure 3, of the present application. Moreover, nothing in the specification would indicate a “charge pump” had a meaning that was beyond its ordinary and accustom meaning in the art.

The Examiner is incorrectly assigning a meaning to the term “charge pump” that is not ordinary and accustom in the art in making the 102 (e) rejection. Claims 1 and 14 respectfully claim charge pumps not diodes. The Smith et al. reference does not teach charge pumps as “charge pumps” are defined under their ordinary and accustomed meaning. Accordingly, the rejection of independent claims 1 and 14 under 35 U.S.C. § 102 (e) is improper.

In addition, the Examiner further stated “[n]owhere in the claims of the instant specification can the limitation of an active charge pump the same as that of pumps 120, 122 as shown in figure 3 of the instant application be seen.” The Applicant, by stating

the charge pump was an active circuit, was not introducing a new term in the specification but merely pointing out the difference between a “charge pump” (as disclosed and claimed in the present application and as the terms ordinary and accustomed meaning in the art conveys) and a diode. In particular, that a charge pump of present application uses such devices as a power source, switches and one or more capacitors to generate energy to charge a bus line and that a diode simply passes current flow. Please review the charge pump of Figure 3 which is described in paragraphs 38-39 of the present application and the description of diode 810 at column 12, lines 43-44 and diode 816 at column 12, lines 52-54 of the Smith et al. reference. Accordingly, the rejection of Claims 1 and 14 under 35 U.S.C. § 102(b) is improper.

II. In addressing the rejection to claim 46, the Examiner in stated that “Col. 13, lines 20-30 state the ESD is discharged to VDD, through VSS and diode 26, thus indicating 810, 816 are not forward biased. Other embodiments such as an event below VSS (lines 53-65) are also discussed.”

Claim 46 claims: “pre-charging each of the electrostatic discharge bus lines to a respective predetermined level, wherein the predetermined voltage level is a voltage level beyond the signal level expected to the applied the to integrated circuit.”

The language in Col. 13 lines 20-30 of the Smith et al. reference relate to **ESD events**. Please see Col. 13, line 21 of the Smith et al. reference. Language regarding **pre-charging** a segment of ESD bus is in lines 15- 20 of the Smith et al. reference. The Smith et al. reference does not teach pre-charging bus lines to a voltage level beyond the signal level expected to be applied to the integrated circuit as is claimed in Claim 46 of the present application. Therefore, claim 46 is distinct from the cited art. Accordingly, the rejection of Claim 46 under 35 U.S.C. § 102(b) is improper.

III. In addressing the Examiners rejection to claim 26 under 103, the Examiner states “[c]olumn 13-20, the operation of the elements 810, 816 as precharging the segmented ESD buses during normal operation. Further, lines 20-30, 53-65 as stated above, illustrate the flow during ESD events.” However, the positive charge pump of

REPLY BRIEF

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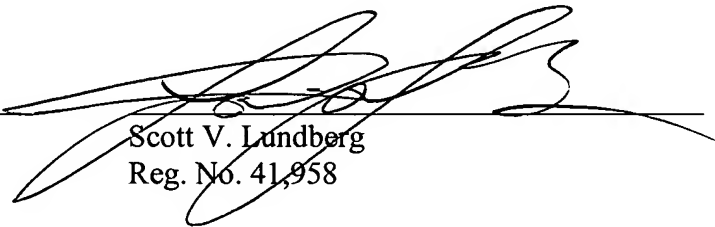
claim 26 of the present application is not diodes 810 and 816. Moreover, neither the Smith et al. reference nor the Ker et al. reference teach or suggest "a positive rail charge pump coupled to charge the positive ESD bus line to a predefined voltage level, wherein the predefined voltage level is higher than anticipated voltage signal levels that will be applied to the first signal bonding pad to reduce parasitic currents through the first unidirectional conducting device during normal operations of the integrated circuit where voltage signals higher than a normal power supply operating voltage, but less than the predefined voltage, are applied to the first signal bonding pad," as is disclosed and Claimed in Claim 26 of the present application. Therefore Claim 26 is distinct from the cited art. Accordingly, the rejection of Claim 26 under 35 U.S.C. § 103(a) is improper.

Reversal of the final rejection is respectfully requested.

Respectfully submitted,

Date: \_\_\_\_\_

7-28-4



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